

Translation

PATENT COOPERATION TREATY

PCT/EP2003/011402



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

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| Applicant's or agent's file reference P035439/WO/1 | FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) | |
| International application No. PCT/EP2003/011402 | International filing date (<i>day/month/year</i>) 15 October 2003 (15.10.2003) | Priority date (<i>day/month/year</i>) 09 November 2002 (09.11.2002) |
| International Patent Classification (IPC) or national classification and IPC B60T 7/12 | | |
| Applicant DAIMLERCHRYSLER AG | | |

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 6 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

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|---|---|
| Date of submission of the demand 07 December 2004 (07.12.2004) | Date of completion of this report 03 March 2005 (03.03.2005) |
| Name and mailing address of the IPEA/EP | Authorized officer |
| Facsimile No. | Telephone No. |

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP2003/011402

I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
pages 4-11, as originally filed
pages _____, filed with the demand
pages 1-3, filed with the letter of 07 December 2004 (07.12.2004)
- ☒ the claims:
pages _____, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages 1-9, filed with the letter of 07 December 2004 (07.12.2004)
- ☒ the drawings:
pages 1/3-3/3, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer-readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP 03/11402

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | | |
|-------------------------------|--------|-----|-----|
| Novelty (N) | Claims | 1-9 | YES |
| | Claims | | NO |
| Inventive step (IS) | Claims | 1-9 | YES |
| | Claims | | NO |
| Industrial applicability (IA) | Claims | 1-9 | YES |
| | Claims | | NO |

2. Citations and explanations

1. This report makes reference to the following documents:

D1: DE 100 41 444 A (BOSCH GMBH ROBERT)

7 March 2002 (2002-03-07)

D6: DE 199 50 162 A (DAIMLER CHRYSLER AG)

10 May 2001 (2001-05-10)

D7: DE 100 63 061 A (DAIMLER CHRYSLER AG; LUCAS

VARITY GMBH (DE)) 20 June 2002 (2002-06-20)

2. D1, which discloses the closest prior art, shows a process for controlling at least one wheel brake device of a vehicle in order to prevent inadvertent rolling away of the vehicle when stationary, as per the preamble of claim 1, and a device for carrying out this process, as per the preamble of claim 8, wherein a starting assistance mode with a preset brake pressure sequence is actuated.

The process and the device as per claims 1 and 8, respectively, differ from D1 in that

- the retaining brake pressure preset when the

starting assistance mode is actuated by the brake pedal position is maintained for a predetermined delay period after complete release of the brake pedal unless the driver's intention to start up has been identified,

- wherein the driver's intention to start up is identified if the time derivative of the engine torque is greater than or equal to a presettable threshold value for change in engine torque and at the same time the time derivative of the engine speed is smaller than or equal to a presettable threshold value for negative change in engine speed.

The problem addressed by the invention is therefore that of providing a reliable starting assistance mode with reliable identification of the intention to start up.

Although D6, which is cited in the search report, shows deactuation of the starting assistance mode delayed by a preset delay period, identification of the intention to start up from time-derived engine torque and engine speed values is absent.

Although, in D7, increase in engine torque is considered in identifying the intention to start up, D7 does not show the additional condition that the time derivative of engine speed must also be smaller than or equal to a presettable threshold value for negative change in engine speed in order reliably to identify a start-up process. D1 considers only engine torque and engine speed in identifying the intention to start up.

The solution proposed in claim 1 and claim 8 of the present application is therefore considered to be novel, to involve an inventive step and to be industrially applicable (PCT Article 33(2) to (4)).

3. Claims 2-7 and 9, which are dependent on claim 1 and claim 8 respectively, describe preferred embodiments of the device according to the invention and therefore likewise meet the requirements of PCT Article 33(2) to (4).